

costs. Drug acquisition cost for ustekinumab reflected the manufacturers' UK Patient Access Scheme. Incremental cost-effectiveness ratios (ICERs) were calculated and treatments were ranked relative to supportive care. One-way sensitivity analyses, using alternative plausible values for key parameters, explored uncertainty in the results. **RESULTS:** Infliximab provided the most additional quality-adjusted life-years (QALYs) vs. supportive care (0.186) followed by ustekinumab (0.174) and adalimumab (0.169). In the base case, adalimumab was the most cost-effective biologic (£19,082/QALY vs. supportive care), followed by ustekinumab (£20,964/QALY), etanercept 25 mg BIW (£26,580/QALY), etanercept 50 mg BIW during the trial period followed by 25mg BIW (£28,719 per QALY), and infliximab (£46,844 per QALY). ICERs for ustekinumab and infliximab compared with adalimumab were £87,625 and £332,015, respectively. Adalimumab remained the most cost-effective in the majority of the sensitivity analyses. **CONCLUSIONS:** In this decision-model analysis, adalimumab was the most cost-effective biologic treatment for moderate to severe psoriasis in the UK.

PSS24

A COST-EFFECTIVENESS ANALYSIS OF INGENOL MEBUGATE GEL FOR THE TREATMENT OF ACTINIC KERATOSIS: A SCOTTISH PERSPECTIVE

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OBJECTIVES: Ingenol mebugate gel is a recently developed, topical, 2 or 3 days patient-administered AK therapy. The objective was to compare the cost-effectiveness of ingenol mebugate gel with diclofenac gel and other available therapies for the first-line treatment of AK in adult patients, from the perspective of the National Health Service (NHS) in Scotland. **METHODS:** A cost-utility analysis was conducted using a decision tree approach to calculate the costs and benefits of different treatment strategies for AK over a 12-month time horizon. Data on the relative efficacy of treatment was derived from a systematic review of RCTs and a subsequent mixed-treatment comparison (MTC). Utility scores and resource use data were obtained from published sources. Due to the uncertainty surrounding the impact of AEs on HRQoL and costs, AEs were modelled in a scenario analysis. **RESULTS:** In the primary comparison, ingenol mebugate 150 mcg/g gel and 500 mcg/g gel were associated with ICERs of £44 and £114 per QALY gained, respectively compared with diclofenac (3%) for 8 weeks and £36 and £74, respectively compared with diclofenac (3%) for 12 weeks. In the secondary comparisons, ingenol mebugate 150 mcg/g gel and 500 mcg/g gel were associated with ICERs of £47 and £134, respectively compared with 5-FU/salicylic acid (0.5%/10%) cutaneous solution and dominated cryotherapy (i.e. were cheaper and more effective). Ingenol mebugate 150 mcg/g gel and 500 mcg/g gel were cheaper and less effective than 5-FU (5%) cream. Ingenol mebugate 150 mcg/g gel, but not ingenol mebugate 500 mcg/g gel, was cost-effective assuming a decision making willingness-to-pay threshold of £20,000/QALY (for one additional QALY gained, there would be an incremental cost of £26,525 incurred for 5-FU (5%) cream vs ingenol mebugate gel). **CONCLUSIONS:** Ingenol mebugate gel is a fast-acting, convenient and, relative to most comparators, cost-effective therapy for the first-line treatment of AK.

PSS25

COST EFFECTIVENESS OF ANTI-OXIDANT VITAMIN + ZINC TREATMENT TO PREVENT THE PROGRESSION OF INTERMEDIATE AGE RELATED MACULAR DEGENERATION TO ITS WET FORM. A SINGAPORE PERSPECTIVE

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OBJECTIVES: To determine if providing high dose anti-oxidant vitamins + Zinc treatment to intermediate Age Related Macular Degeneration (AMD) patients aged 40-79 years from Singapore is cost effective in preventing progression to Wet AMD. **METHODS:** We estimated the number of AMD patients aged 40 to 79 years (Category 3 and 4) in the Singaporean resident population. This hypothetical cohort was followed for 5 calendar years to determine the number of patients who would progress to wet AMD given the following four treatment scenarios: a) Vitamins + Zn followed by Ranibizumab (as needed) for wet AMD; b) Placebo followed by Ranibizumab (as needed) for wet AMD; c) Vitamins + Zn followed by Bevacizumab (monthly) for wet AMD; and d) Placebo followed by Bevacizumab (monthly) for wet AMD. Costs were estimated for the above scenarios from the providers' perspective and cost effectiveness was measured by cost per disability adjusted life year (DALY) averted with a disability weight of 0.22 for wet AMD. Crude annual mortality rate was incorporated into the model. **RESULTS:** Over 5400 patients could be prevented from progressing to Wet AMD cumulatively over five years if preventive anti-oxidant vitamins + Zn treatment were prescribed. Vitamins + Zn followed by ranibizumab (as needed) or bevacizumab (monthly) was cost effective compared to placebo followed by either drug (cost per DALY averted: \$1885.8 - well within the threshold suggesting it is cost effective). However, bevacizumab (monthly 1 injection) alone was cost effective. Cost savings as a result of prescribing anti-oxidant vitamins + Zn were \$46.7M for ranibizumab arm over 5 years. **CONCLUSIONS:** Prophylactic treatment with high dose anti-oxidant vitamins + Zn for intermediate AMD patients, followed by ranibizumab for patients who progressed to wet AMD was found to be cost-effective. These findings have implications for intermediate AMD screening, treatment and health care planning in Singapore.

PSS26

COST-EFFECTIVENESS ANALYSIS OF LINEZOLID AND VANCOMYCIN IN PATIENTS WITH COMPLICATED SKIN AND SOFT-TISSUE INFECTIONS CAUSED BY METHICILLIN-RESISTANT STAPHYLOCOCCUS IN PORTUGAL

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OBJECTIVES: Methicillin-resistant *Staphylococcus aureus* (MRSA) complicated skin and soft-tissue infection (cSSTI) is an infection associated with high health expenditure for the Portuguese National Health Service (NHS). A decision analytic model

was adapted to the Portuguese setting to evaluate the cost-effectiveness (CEA) of linezolid vs. vancomycin in MRSA cSSTI. **METHODS:** Published Bayesian evidence synthesis results were used to populate efficacy parameters of the model. Resource utilization and MRSA prevalence rates were obtained through an expert panel of Portuguese clinicians and costs from published sources were applied to resource units. Analyses were done from the Portuguese NHS perspective. Both univariate and probabilistic sensitivity analyses were performed to test the robustness of model results. **RESULTS:** Average cost per patient for linezolid and vancomycin treatments were 15,195€ and 17,345€ respectively. Average effectiveness gained with linezolid treatment was 0.002QALYs. Average saving obtained with linezolid treatment was 2150€ per patient. **CONCLUSIONS:** Linezolid is a dominant strategy compared to vancomycin: less costly and more effective. Compared to vancomycin, linezolid is expected to result in lower total costs that offset its higher acquisition cost in cSSTI in Portugal.

PSS27

ECONOMIC EVALUATION OF RANIBUZUMAB FOR THE TREATMENT OF MYOPIC CHOROIDAL NEOVASCULARIZATION IN CANADA

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OBJECTIVES: To assess the cost-effectiveness of ranibizumab compared to verteporfin in photodynamic therapy (vPDT) for the treatment of myopic choroidal neovascularization (mCNV) from the Canadian health care and societal perspectives. **METHODS:** A Markov model was used to follow a cohort of 55-year old patients with mCNV over a lifetime horizon. The model included 8 health states based on best corrected visual acuity (BCVA) and an absorbing death state. Patients were allowed to remain in their current health state, or transition to other health states or death every 3 months. Results from the RADIANCE trial were used to inform the first year transitions for patients receiving ranibizumab, and the first 3 months for those on vPDT. The VIP trial was used to estimate month 4-12 transitions for vPDT. Patients transitioned according to natural progression from year 2 onwards. Health state utilities were derived from a Canadian utility study and published sources. Resource use and costs were collected from clinical trials, published literature, expert opinion, and standard Canadian sources. **RESULTS:** From the health care perspective, patients receiving ranibizumab for mCNV incurred less health care costs compared to those on vPDT (cost savings of \$3,939). This was achieved while accruing an additional 0.07 life years (LYs) and 0.37 quality-adjusted life years (QALYs). Thus ranibizumab dominated vPDT. Similar findings were observed from the societal perspective (cost saving of \$14,217). The average BCVA score remained consistently higher with ranibizumab compared to vPDT over the entire time horizon. **CONCLUSIONS:** From a cost-effectiveness standpoint, ranibizumab dominated vPDT in the treatment of mCNV, from both Canadian health care and societal perspectives. Patients on ranibizumab realized more QALYs and LYs at a lower cost compared to vPDT.

PSS28

COST-EFFECTIVENESS OF INTRAVITREAL AFLIBERCEPT IN TREATING NEOVASCULAR AGE-RELATED MACULAR DEGENERATION IN SWEDEN

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OBJECTIVES: Monthly dosing with ranibizumab (RBZ) is needed to achieve maximal sustained visual gains in patients with neovascular ("wet") age-related macular degeneration (wAMD). In Sweden dosing is on an as-needed (PRN) basis, resulting in suboptimal efficacy. Intravitreal aflibercept dosed every 2 months (IVT-AFL) demonstrated clinically equivalent efficacy compared to RBZ monthly dosing (RBZ Q4) in a randomized clinical trial setting. We assessed the cost-effectiveness of IVT-AFL vs. RBZ Q4 and RBZ PRN real-life data, in a Swedish setting. **METHODS:** A Markov model compared wAMD treatment over two years with either IVT-AFL, RBZ Q4 or real-life RBZ PRN. Health states were based on visual acuity in the better-seeing eye; a proportion discontinued treatment monthly or upon visual acuity <20/400. Parameters were estimated from trial data, published literature, or expert opinion. Analyses were performed from a societal perspective with a lifetime horizon (starting age 77 years). The model calculated costs (drug, administration, monitoring, vision impairment, adverse events, caregiver), quality-adjusted life-years (QALYs), and incremental cost-effectiveness ratios (ICERs), all discounted 3% annually. Deterministic and probabilistic sensitivity analyses were performed. **RESULTS:** IVT-AFL cost 578,400 SEK, compared with 686,600 SEK for RBZ Q4 and 565,700 SEK for real-life RBZ PRN; QALYs totaled 4.58 for IVT-AFL, 4.59 for RBZ Q4, and 4.43 for real-life RBZ PRN. Compared with real-life RBZ PRN, IVT-AFL cost 80,000 SEK/QALY gained. RBZ Q4 cost over 20 million SEK/QALY gained, compared with IVT-AFL Q8. The model was most sensitive to IVT-AFL efficacy and patient age. IVT-AFL had a 42% probability of dominating RBZ Q4 and a 100% probability of being cost-effective vs. RBZ PRN, at an assumed willingness-to-pay threshold of 500,000 SEK. **CONCLUSIONS:** Results suggest that, in Sweden, attainment of maximal visual gains via IVT-AFL is cost-effective compared with real-life RBZ PRN dosing. RBZ Q4 is not cost-effective relative to IVT-AFL.

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THE COST-EFFECTIVENESS OF BIMATOPROST 0.03%/TIMOLOL 0.05% PRESERVATIVE-FREE FIXED COMBINATION COMPARED WITH DORZOLAMIDE/TIMOLOL PRESERVATIVE-FREE FIXED COMBINATION AND 2-BOTTLE UNFIXED COMBINATIONS FOR THE TREATMENT OF PRIMARY OPEN-ANGLE GLAUCOMA IN THE UNITED KINGDOM

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OBJECTIVES: To evaluate the cost-effectiveness of bimatoprost 0.03%/timolol 0.05% (BTFC) preservative-free (PF) fixed combination compared with dorzolamide/timolol